WORKSHEET W-3 2004

WATER RIGHT/PERMIT/ BMP Farm Unit NO. ____________

1

DWR WELL REGISTRATION NO.	10 Q	40 Q	160 Q	LOCATION Sec	Twn	Rng

2

TYPE OF MEASURING DEVICE	MAKE/MODEL
SIZE	INSTALLATION OR OVERHAUL DATE

3

POWER CO. NAME	ACCOUNT NO.	GAS METER NO.

4 INSIDE DIAMETER OF DISCHARGE PIPE ______ (inches)

5

Date of Measurement	Differential or Velocity Head (Specify Units)	F	Discharge (Gals/Min)	Cubic Ft. Sec.
A MINIMUM OF TWO MEASUREMENTS IS REQUIRED	TOTALS			

6 AVERAGE DISCHARGE ______ FACTOR B

7 ______ FACTOR F

8 AVERAGE CUBIC FT. SEC. ______ FACTOR C

9 DIVIDER = 195500 X $\frac{F \times C}{B}$ = ______

10 ENERGY CONSUMPTION ______

11 WATER WITHDRAWN = $\frac{\text{Box } 10}{\text{Box } 9}$ = ______ ACRE FEET

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WORKSHEET W-3

ARIZONA DEPARTMENT OF WATER RESOURCES

Note: This method cannot be used when energy meter serves other uses.

PIPE FLOW
WITH PUMPAGE CALCULATED USING NATURAL GAS ENERGY RECORDS

INSTRUCTIONS

Note: If any information pre-printed on this form is incorrect, please make the needed corrections. For that information not already preprinted on this form, please follow the directions below.

1. Enter DWR well registration number and location in [1].
2. If the meter has been changed during the reporting year, enter type, make, model and size of measuring device used to measure discharge in [2]. If the device is permanent, enter date installed or last overhauled.
3. Enter power company name, account number and meter number in [3].
4. Enter the inside diameter of the well discharge pipe (inches) in [4].
5. Enter the following information in [5]: the date of measurement, differential or velocity head of the pipe flow, Factor F for the meter as shown on your power bill, the pump discharge, and the cubic feet per second of the gas meter, for each measurement taken. A minimum of two measurements are required. These measurements should be taken during the spring and in late summer if possible. Measuring more often produces more accurate results. It is desirable to operate the pump at least 24 hours before measuring the discharge.
6. Add the values in the pump discharge column and divide by the number of measurements to obtain the average discharge which is designated as Factor B. Enter in [6].
7. Repeat the same procedure for the F column to obtain the average for F which is designated as Factor F. Enter in [7].
8. Repeat the same procedure for the cubic ft./sec. column to obtain the average cubic feet per second of gas which is designated as Factor C. Enter in [8].
9. Enter Factor F, Factor B, and Factor C in the formula provided. Complete the calculation as shown to obtain the divider. Enter in [9].
10. Enter the total energy consumption used in therms. This amount may be obtained from your natural gas energy bills as well as the initial and ending readings from your meter. Enter in [10].
11. Divide the total energy consumption entered in [10] by the value computed in [9] to obtain the total water withdrawn by the well. Enter in [11].

ENTER THE FOLLOWING ON SCHEDULE A

WORKSHEET W-3		SCHEDULE A
Box [1]	---	DWR well registration number & location in column [2] if not already shown.
Box [3]	---	Power company name, account number and meter number in column [3].
Box [6]	---	Average discharge in column [7].
Box [9]	---	Divider in column [8].
Box [10]	---	Energy consumption in column [6].
Box [11]	---	Water withdrawn in column [9].

NOTE: THIS WORKSHEET MUST BE SUBMITTED WITH SCHEDULE A.